

IN THE CLAIMS:

Please amend/replace claims 1, 6, 8, and 11 as follows:

Claim 1. (currently amended) An apparatus for fixing the position of a metal end cap on a porous filter element, the apparatus comprising:

a filter support mechanism for supporting a filter element;

an emplacement applicator located proximate said filter support mechanism for placing an end cap on an end of said filter element, said end cap having an adhesive disposed thereon;

a first inductive heater disposed at a first side of said filter element support mechanism and being reciprocally movable with respect thereto, said first inductive heater heating said end cap to pre-cure said adhesive to bond said end cap to said filter element; and

a drive system for selectively and reciprocally moving said first inductive heater toward and away from said filter support mechanism.

Claim 2. (original) The apparatus of claim 1, further comprising a second inductive heater disposed at a second side of said filter element support mechanism and being reciprocally movable with respect thereto; and wherein said drive system is operable to simultaneously move said first and second inductive heaters in substantially opposite directions.

Claim 3. (original) The apparatus of claim 2, further comprising first and second support pillars, wherein said first inductive heater is movably supported in said first pillar, and said second inductive heater is movably supported in said second pillar.

Claim 4. (original) The apparatus of claim 3, further comprising a control shaft extending between said first and second support pillars and being rotatably mounted thereto, said control shaft having a first end with a right-hand threading formed thereon,

and a second end with a left-hand threading formed thereon, wherein each of said first and second heaters are threadably connected to said control shaft.

Claim 5. (original) The apparatus of claim 4, further comprising a motor, operatively connected to said control shaft, for rotating said control shaft to move said inductive heaters in substantially opposite directions.

Claim 6. (currently amended) An apparatus for fixing the position of metal end caps on a porous filter element, the apparatus comprising:

- a support structure comprising first and second side pillars and a boom interconnecting the side pillars;

- a control shaft disposed within said support structure and rotatably mounted thereto, said control shaft having a first end with a right-hand threading formed thereon, and a second end with a left-hand threading formed thereon;

- a first inductive heater located in said first side pillar and movably supported on said control shaft, said first inductive heater pre-curing an adhesive in a first end cap disposed on a first end of said filter element; and

- a second inductive heater located in said second side pillar and movably supported on said control shaft, said second inductive heater pre-curing an adhesive in a second end cap disposed on a second end of said filter element.

Claim 7. (original) The apparatus of claim 6, further comprising a motor, operatively connected to said control shaft, for rotating said control shaft to move said inductive heaters in substantially opposite directions.

Claim 8. (currently amended) A method of forming a filter cartridge, comprising the steps of:

- a) supporting a porous filter element at a central portion thereof;
- b) transferring the filter element to an end cap application station;
- c) placing a pair of metal end caps, having an adhesive therein, on opposite ends of said filter element;
- d) transferring the filter element to an inductive heating station; and
- e) heating the end caps, by inductive heating, thereby pre-curing said adhesive in said pair of metal end caps to bond said pair of metal end caps to opposing ends of said filter element ~~fixing the position of the end caps on the filter element.~~

Claim 9. (previously presented) The method of claim 8, further comprising the steps of:

- f) transferring the filter element, with attached end caps, to a final cure conveyor; and
- g) moving the filter element, on the final cure conveyor, through a final cure oven.

Claim 10. (currently amended) The method of claim 9, wherein said filter element is rotated from a substantially horizontal orientation to a substantially vertical orientation thereof during the step of transferring the filter element with the attached end caps. ~~step f).~~

Claim 11. (currently amended) An apparatus for fixing the position of a metal end cap on a porous filter element, the apparatus comprising:

a filter support apparatus for supporting a filter element, said filter support apparatus being movable from a first station to a second station;

an emplacement applicator located at said first station for placing an end cap on an end of a filter element held by said filter support apparatus;

a first inductive heater disposed at said second station and being reciprocally movable with respect to said filter support apparatus, said first inductive heater heating said end cap to pre-cure an adhesive in said end cap to bond said end cap to said filter element; and

a heater moving device for selectively and reciprocally moving said first inductive heater toward and away from said filter support apparatus at said second station.

Claim 12. (original) The apparatus of claim 11, further comprising a second inductive heater at said second station, and wherein said heater moving device is operable to move said first and second inductive heaters simultaneously in opposite directions.

Claim 13. (original) The apparatus of claim 1, wherein the filter support mechanism comprises a gripper assembly which is movably mounted on a continuous loop chain conveyor.

Claim 14. (previously presented) The apparatus of claim 11, wherein the filter support apparatus comprises a gripper assembly which is movably mounted on a continuous loop chain conveyor.

Claim 15. (previously presented) A method of forming a filter cartridge, comprising:  
providing a filter element;  
transferring said filter element to an end cap application station;  
disposing an adhesive on a pair of metal end caps;  
placing said pair of metal end caps on opposite ends of said filter element;  
transferring the filter element to an inductive heating station; and  
heating said pair of end caps to pre-cure said adhesive, wherein said pair of end caps are bonded to said filter element.

Claim 16. (previously presented) The method as in claim 15, wherein the step of heating is performed by a pair of inductive heating assemblies one for each end cap.

Claim 17. (previously presented) The method as in claim 16, wherein said pair of inductive heating assemblies prevents bonding of said pair of end caps to said pair of inductive heating assemblies.

Claim 18. (previously presented) The method as in claim 16, wherein said pair of inductive heating assemblies are configured to move simultaneously in opposite directions.

Claim 19. (previously presented) The method as in claim 16, wherein said pair of inductive heating assemblies incorporate electromagnetic field generators.

Claim 20. (previously presented) The method as in claim 19, wherein said pair of inductive heating assemblies induce current flow within said pair of end caps during said heating step.

Claim 21. (previously presented) The method as in claim 15, further comprising:  
transferring said filter element with the pre-cured adhesive to a final cure

station.

Claim 22. (previously presented) The method as in claim 21, wherein said final cure station is an oven for baking the filter element to permanently fix said end caps on said filter element.

Claim 23. (previously presented) The method as in claim 22, wherein said filter element is substantially cylindrical.

Claim 24. (previously presented) The method as in claim 15, wherein said filter element is substantially cylindrical.

Claim 25. (previously presented) The method as in claim 15, wherein said heating causes a high-frequency electromagnetic field to surround each end cap, wherein the electromagnetic field induces current flow within each end cap.

Claim 26. (previously presented) A method of securing a pair of end caps to a filter element, comprising:

- transferring the filter element to an end cap application station;
- disposing an adhesive on the pair of end caps;
- placing the pair of end caps on opposite ends of the filter element; and
- heating the pair of end caps to pre-cure said adhesive, wherein the pair of end caps are bonded to the filter element and wherein said heating causes a high-frequency electromagnetic field to surround each end cap, wherein the electromagnetic field induces current flow within each end cap.